



Operating Instructions



SolConeX Plug, 63 A

> 7579/12



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2 General Information

2.1 Manufacturer

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2.2 Operating Instructions Information

ID-No.: 126672 / 7579602300
Publication code: 2013-05-23·BA00·III·en·03

2.3 Conformity to Standards and Regulations

Conformity with standards and regulations is specified in the corresponding certificates and declarations of the manufacturer (e.g. EC Declaration of Conformity). These documents are available for download in the download area on our homepage at www.stahl-ex.com.





3 Symbols Used

	Safety instructions Non-observance can result in damage to equipment, serious injuries or death. The safety instructions contained in these operating instructions and affixed to the device must be observed!
	Warning symbol Danger due to explosive atmosphere!
	Warning symbol Danger due to live parts!
	Notice This graphic marks important additional information, tips and recommendations.

4 General Safety Instructions

4.1 Operating Instructions Storage



Read these operating instructions carefully and store them near the installation place. For correct operation, please observe all other documents enclosed in this delivery and the operating instructions of the equipment to be connected.

 WARNING	
	Use the devices only for their intended purpose! ► We cannot be held liable for damage caused by an incorrect or unauthorized use or by non-observance of these operating instructions. ► Use the device only if it is undamaged.
 WARNING	
	Any unauthorized work on the device is prohibited! Installation, maintenance, overhaul and repair may only be carried out by appropriately authorized and trained personnel.

Observe the following information during installation and operation:

- Any damage can invalidate the explosion protection
- National and local safety regulations
- National and local accident prevention regulations
- National and local assembly and installation regulations
- Generally recognized technical regulations
- Safety instructions in these operating instructions
- Characteristic values and rated operating conditions on the rating and data plates
- Additional information plates fixed directly to the device

4.2 Alterations and Modifications

 WARNING	
	<p>Alterations and modifications to the device are not permitted!</p> <p>We shall not accept any liability or warranty obligations for damage resulting from alterations and modifications.</p>

4.3 Special Versions



In case of additional/different order options, special versions may differ from the description given here.

5 Intended Use

The plugs 7579/12 are explosion protected equipment, certified for use in hazardous areas of Zones 2 and 22. The devices connect portable and fixed electrical equipment as well as cables and circuits in hazardous areas. The plugs can be used with the following sockets:

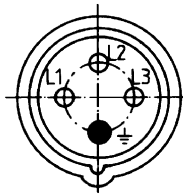
- ▶ 7579/11 Switch socket
- ▶ 7579/31 Switch socket
- ▶ Industrial type sockets according to CEE standard

6 Technical Data

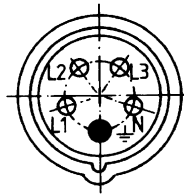
Version	7579/12
Explosion protection	
Gas and dust	 II 3 G Ex nA nC IIC Gc  II 3 D Ex tc IIIC Dc IP66
Electrical data	
Rated operational voltage	max. 690 V
Rated operational current	63 A ≥ 100 Hz, 50 A
Rated insulation voltage	max. 690 V
Ambient conditions	
Ambient temperature	see Explosion protection data 7579/11 or 7579/31
Mechanical data	
Enclosure material	polyamide
Degree of protection	IP66 acc. to IEC/EN 60529
Assembly / Installation	
Connection terminal	
Connection cross-section	max. 16 mm ²
Tightening torque	max. 2 Nm
Cable entry	24 ... 36 mm cable diameter

6.1 Arrangement of Contact Pins and Terminal Marking

View from the front. The illustrations show the 6 h position.



3P + PE



3P + N + PE

No. of poles	Frequency	Rated operational voltage	Colour code	Position of the earth contact
3P + PE	50 and 60 Hz	100 ... 130 V	yellow	4 h
		200 ... 250 V	blue	9 h
		380 ... 415 V	red	6 h
	60 Hz	440 ... 460 V ¹⁾	red	11 h
	50 and 60 Hz	480 ... 500 V	black	7 h
		600 ... 690 V	black	5 h
		after isolating transformer	⁴⁾	12 h
	50 Hz 60 Hz	380 V ²⁾ 440 V ²⁾	red	3 h
	100 ... 300 Hz	> 50 V	green	10 h ³⁾
3P + N + PE	50 and 60 Hz	57 / 100 ... 75 / 130 V	yellow	4 h
		120 / 208 ... 144 / 250 V	blue	9 h
		200 / 346 ... 240 / 415 V	red	6 h
		277 / 480 ... 288 / 500 V	black	7 h
		347 / 600 ... 400 / 690 V	black	5 h
	60 Hz	250 / 440 ... 265 / 460 V	red	11 h
	50 Hz	220 / 380 V ²⁾	red	3 h
	60 Hz	250 / 440 V ²⁾		
	100 ... 300 Hz	> 50 V	green	10 h
	> 300 ... 500 Hz	> 50 V	green	2 h
Any no. of poles	All nominal operating voltages and/or frequencies not covered by other arrangements.			1 h

Colour code and arrangement of the earthing contact, relative to the polarizing slot, for different voltages and frequencies according to IEC/EN 60309-2

¹⁾ Mainly for ship installations

²⁾ Only for refrigerated containers (according to ISO standards)

³⁾ Not standardized but recommended preferred position

⁴⁾ Colour code in accordance with voltage colour code

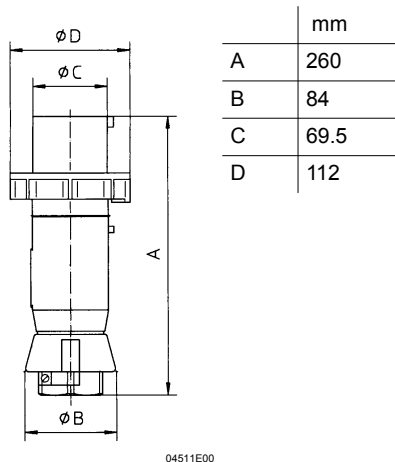
7 Transport and Storage

- Transport and storage are only permitted in the original packaging.
- The devices must be stored in a dry place and vibration-free.

8 Installation

8.1 Dimensional Data / Fastening Dimensions

Dimensional drawings (all dimensions in mm) - subject to alterations



8.2 Installation and Operating Position

With the plug inserted, the operating position is optional.

- When unplugged, the plug should be suspended, with the contact pins pointing downward.

NOTICE



A suitable protective cap protects the plug pins from pollution. Protective cap, see "Accessories and Spare Parts", Art.no. 153261.

8.3 Electrical Connection

- The information given in chapter "Technical Data" must be observed.
- The conductor connection must be made with particular care.
- The conductor insulation must reach to the clamping points.
- Do not damage the conductor (nicking) when removing the insulation.
- Select suitable cables to be used and appropriate way of installing them to ensure that the maximum permitted conductor temperatures and the maximum permitted surface temperature are not exceeded.

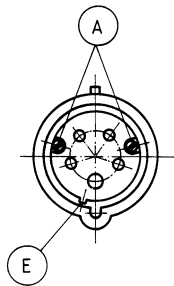
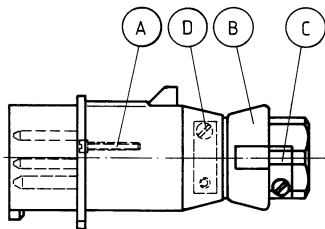
NOTICE



Always connect the protective conductor.

8.4 Connection

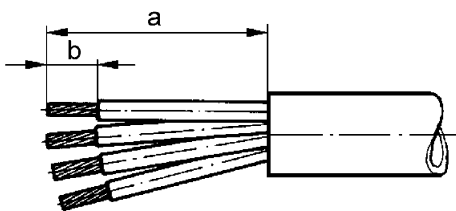
⚠ WARNING	
EX	Ensure correct conductor connection! Observe the information regarding the connection cross-sections given in chapter "Technical Data".



- A = Screw
- B = Pressure screw
- C = Clamp
- D = Strain relief
- E = Guiding groove

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- Loosen screws (A) and extract the plug insert manually from the enclosure.
- Loosen clamp (C) and pressure screw (B).
- Remove the dust protection plate, and take out the pressure ring and seal.
- Push the cable (ø 24 ... 36 mm) through the pressure screw, pressure ring, gasket and enclosure.
- If necessary, increase the internal diameter of the seal by trimming it to match the cable diameter.
- Strip the insulation from the cable (see figure).



a [mm]	b [mm]	Connection cross section [mm ²]
80	17	2.5 ... 16 mm ²

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NOTICE	
	On the connection side, the contact pin carrier is marked with "Abisolation" (insulation removed) next to the earth connection symbol. The indentation below indicates the correct stripping length.

- Connect the cable (connection cross-section 2.5 ... 16 mm²) to the plug insert. The stripped cable ends must be pushed fully underneath the clamping plate.
- Align the cable such that the terminals are not under strain.
- Mount the strain relief (D).
- Fasten the plug insert in the enclosure such that key and guiding groove (E) match.
- Press the seal into the enclosure (prestamped side pointing inwards).
- Place the pressure ring on the seal.
- Tighten the pressure screw (B).
- Secure the pressure screw with the clamp (C).

9 Putting into Service

Before commissioning, ensure that:

- ▶ no components are damaged
- ▶ the device has been installed according to regulations
- ▶ there are no foreign bodies inside the device
- ▶ all screws and nuts have been firmly tightened
- ▶ all wires have been inserted correctly
- ▶ the prescribed tightening torques have been observed
- ▶ connection has been made correctly
- ▶ the bayonet lock is tightened correctly

⚠ WARNING	
	Do not damage the plug pin surface! Excessive tightening of the components can impair the degree of protection.
⚠ WARNING	
	The plug may only be used when fully mounted! If not fully mounted, the plug must not be used.

10 Maintenance, Overhaul and Repair

Consult the relevant national regulations to determine the type and extent of inspections. Plan the intervals such that any defects in the equipment which may be anticipated are promptly detected.

⚠ WARNING	
	Risk of electric shock! Before opening the device, disconnect it from the power supply.


The following details must be checked during maintenance:

- ▶ Cables are held securely in place
- ▶ Compliance with the permitted temperatures (according to IEC/EN 60079)
- ▶ Damage to the enclosure and seals
- ▶ Check if screws and nuts are tight.


NOTICE	
	To avoid corrosion, the plug must be pulled regularly.

Maintenance

- ▶ If required, clean plug pins
- ▶ After 1000 mating cycles, lubrication, after previous cleaning, with the lubricating oil **KLÜBERALFA KRA 3-730** is recommended.

NOTICE	
	It is not allowed to use lubricating greases based on mineral oils!

10.1 Short-circuit in the Main Circuit

⚠ WARNING	
	Danger caused by a short-circuit in the main circuit! The functioning of the plug must always be checked after any system short-circuit.

11 Cleaning


The device may only be cleaned with a damp cloth.

12 Disposal

► Observe the national waste disposal regulations.

13 Accessories and Spare Parts

⚠ WARNING	
	If wrong accessories are used, explosion protection cannot be guaranteed! Use only original R. STAHL accessories and spare parts.

Designation	Figure	Description	Art. no.	Weight kg
Protective cap	 05365E00	protects the plug pins from pollution	153261	0.100



